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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,675	02/15/2002	Yakov S. Katsnelson	5099.21	2654

7590

09/29/2004

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EXAMINER

FAULCON JR, LENWOOD

ART UNIT

PAPER NUMBER

3762

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/075,675	<b>Applicant(s)</b> KATSNELSON, YAKOV S.	
	<b>Examiner</b> Lenwood Faulcon, Jr.	<b>Art Unit</b> 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 15 February 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2 April 2002</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Specification***

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 2 and 6 claim the frequency of the pulses that comprise the asymmetrical tone burst as being approximately 1150 to 1450 times the repetition frequency; however, the specification fails to provide a proper antecedent for this subject matter.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al. (U.S. Patent No. 6,505,079) in view of Limoge (U.S. Patent No. 3,835,833), and further in view of Fischell et al. (U.S. Patent No. 6,597,138).

Foster et al. teaches of a method and apparatus for effecting transcranial electrostimulation by applying rectangular waves to the cranial region, comprising high frequency harmonics of base frequency signals with positive and negative features that are combined to exhibit no DC term (col. 3 lines 5-9). Further, Foster et al. discloses asymmetrical waveforms (Fig. 2), a frequency range of about 100 Kilohertz to 10

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Megahertz and the use of burst frequencies that range from about 10 Hertz to 100 Kilohertz (col. 24 lines 28-34). Foster et al. also teaches the use of a broad variety of waveform types that can be implemented into the apparatus or method (col. 15 lines 27-29) and further teaches of adjusting the amplitude of waveforms (col. 24 lines 6-10).

Limoge discloses a method and apparatus for obtaining neurophysiological effects by providing a means for modulating the amplitude of a high frequency signal by low frequency squared-shaped pulses (col. 3 lines 47-57). Limoge also discusses the benefits of using square-shaped pulses whose duration, amplitude and frequency are chosen according to the desired neurophysiological effects (col. 1 lines 50-65).

Fischell et al. teaches of a system for treating neurological conditions by low frequency electrical stimulation (col. 3 lines 2-5). Fischell et al. also teaches of varying the amplitude of the frequency during stimulation in accordance to a desired treatment plan. One such method Fischell describes is having the amplitude begin high and decreases over the duration (col. 5 lines 13-18). Although Fischell et al. utilizes low frequency electrical stimulation, it is common in the art to use high and low frequencies for stimulation.

It would have been obvious to one of ordinary skill in the art to adjust waveform components such as the amplitude, pulse rate, duration, etc. to achieve the desired therapeutic or investigatory results based on patient needs and bodily characteristics.

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**Conclusion**

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Miller et al. (U.S. Patent No. 4,121,594), Baker, et al. (U.S. Patent No. 4,821,723), Freeman (U.S. Patent No. 5,193,537).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lenwood Faulcon, Jr. whose telephone number is 703-305-0582. The examiner can normally be reached on Monday-Thursday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela D. Sykes, can be reached on 703-305-0582. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lenwood Faulcon, Jr.



Primary Examiner